

**REMARKS**

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for the courtesies extended during the recent telephonic interviews.

**Disposition of Claims**

Claims 1, 5-7, and 8-11 are pending in this application. Amended claims 1, 5, and 7, and new claim 8 are independent. Claims 1, 5, and 7 has been amended in this reply to include the limitations of claims 3 and 4. New claim 8 also includes these limitations. Claims 3 and 4 have been cancelled. Further, claim 6 depends from claim 1 and claims 9-11 depend from claim 8.

**Rejections under 35 U.S.C § 103**

Claims 3 and 4 have been cancelled by this reply. Claims 1, and 5-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nellissen. Claims 1, 5, and 7 have been amended by this reply, to include the limitations of cancelled claims 3 and 4. Accordingly, this rejection is now moot.

Claims 3 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,937,493 (“Nellissen”) in view of U.S. Patent No. 5,584,120 (“Roberts”). This rejection is respectfully traversed.

Specifically, claim 1, as amended, recites a multilayer circuit board, including a substrate having a first surface and a second surface extending from an end of the first surface at a required angle relative to the first surface, a multilayer circuit formed on the

first surface of said substrate and composed of a plurality of circuit layers, each of which is provided with a conductive layer having a required circuit pattern and an insulation layer formed on said conductive layer by film formation, a second conductive layer formed on the second surface of said substrate, by which said conductive layer of one of said circuit layers is electrically connected to said conductive layer of another one of said circuit layers, wherein the second surface of said substrate includes a side surface of a projection on the first surface, wherein the said first surface is a top surface of said substrate, and the second surface further includes a side surface of said substrate, and wherein the required angle between the first and second surfaces is an obtuse angle.

The Examiner has admitted Nellissen does not disclose the limitations of cancelled claims 3 and 4, which are now recited in amended claim 1. Further, Nellissen does not disclose “a second conductive layer formed on the second surface of said substrate, by which said conductive layer of one of said circuit layers is electrically connected to said conductive layer of another one of said circuit layers, wherein the second surface of said substrate includes a side surface of a projection on the first surface” (*i.e.*, Nellissen fails to show or suggest layer-to-layer connections between conductive layers in the multilayer circuit). As shown, for example, in Figure 6 and recited in amended claim 1, the present invention provides layer-to-layer connections that are integral with the multilayer circuit.

In contrast, Nellissen discloses a multilayer circuit in which the individual circuit layers within the multilayer circuit are connected via an electrical contact 33' that is *not* integral with the multilayer circuit. Rather, the electrical contact 33' is located on top of the surface of the multilayer circuit (See Nellissen, Figure 13).

Further, Roberts does not disclose what Nellissen lacks. Specifically, Roberts discloses a method for manufacturing printed circuit boards. However, Roberts does not disclose or suggest a multilayer circuit board having layer-to-layer connections as recited in claim 1. Thus, claim 1 is not obvious under Nellissen in view of Roberts. Dependent claims are patented for at least the same reasons. Further, claims 5 and 7 have essentially the same limitations as claim 1, and thus are patentable for at least the same reasons.

### **New Claims**

Claims 8-11 have been added by this reply. Support for these claims may be found, for example, in Figure 8 of the instant specification. Claim 8 includes the limitation "wherein an angle between the side surface of said projection and the first surface is an obtuse angle," which the Examiner has asserted is not taught by Roberts. Further, claim 8 includes the limitation of layer-to-layer connections that are not taught by Roberts or Nellissen. Thus, claims 8-11 are patentable over Nellissen, and Nellissen in view of Roberts.

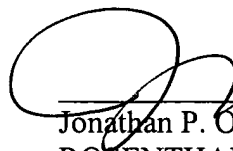
### **Concluding Remarks**

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 11411.002001).

Respectfully submitted,

Date: \_\_\_\_\_

*11/26/03*



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